

### REMARKS

Applicants have amended claims 19-30. No new matter has been added to the application by virtue of the present amendment.

Claims 19-30 are pending in the subject application, and all of such claims stand rejected. It is respectfully requested that the pending claims 19-30 be reconsidered and passed to issuance in view of this response.

### Claim Objections

The Examiner has objected to claims 19-30 because of informalities. The Examiner states that the numbering of the claims, such as [c19], is not proper.

Applicants have made appropriate corrections to the claims to the numbering of the claims as suggested by the Examiner. Applicants note that since the present application was filed electronically using the USPTO's electronic filing software, Applicants had no control over the original claim numbering (i.e. [c19]) as it was the Office's software which provided the claim numbering as such.

Therefore, Applicants respectfully submit that the objections to the claims have been overcome.

### Claim Rejections - 35 U.S.C. 112

Examiner rejected claims 20, 23, 24, 26 and 28 under 35 U.S.C. 112.

Applicants have made appropriate corrections to claim 19 to provide antecedent basis for the limitations in claims 20, 23, 24, 26 and 28.

Therefore, Applicants believe the rejections under 35 U.S.C. 112 have been overcome.

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**Claim Rejections – 35 U.S.C. 102(e)**

The Examiner has rejected claims 19-30 under 35 U.S.C. 102(e) as being anticipated by Burr (U.S. Patent No. 5,985,727).

With respect to independent claim 19, Applicants have amended claim 19 to more clearly distinguish Applicants' invention over Burr. Claims 20-30 are dependent upon claim 19, as amended. Support for Applicants' amendment to claim 19 can be found, for example, in paragraphs [0033-0034] and FIGS. 1c, 2b. As shown in FIG. 1c of the present application, Applicants' disclose a substrate (SOI body 12) which is of a P-type dopant and has a dopant level which is relatively low-doped (P-). A non-rectifying diffusion contact 38 is formed of the same dopant type (i.e. P-type) as the substrate 12 and has a dopant level which is different than the dopant level of the substrate. The non-rectifying diffusion contact 38 has a higher dopant level (i.e. P+ as denoted in FIG. 1c) than the substrate 12. Thus, Applicants' invention provides an abrupt P+ to P- ohmic contact which reduces series resistance of the diffusion contact resulting in improved device performance.

Burr does not anticipate or suggest Applicants' claim 19, as amended. Burr discloses a channel region 44 (which the Examiner refers to as a non-rectifying contact diffusion) which is located in a P- well 34 of substrate 32. The channel region 44 is of the same dopant level as the P- well 34 since the channel region 44 is simply the region of the P- well which is located under the GATE. Thus, Burr is silent on forming a channel region 44 which has a dopant level which is different than the substrate dopant level.

Further, Applicants' respectfully disagree with the Examiner's characterization of the channel region 44 of Burr as a "non-rectifying contact diffusion". Applicants' respectfully submit that Burr discloses two rectifying contact diffusions 36 and 38 (n-type) which are used to allow an external contact to couple to the FET. As it is known in the art, channel region 44 does not allow for an external contact to couple to the FET since it is isolated by the diffusions 36, 38

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and GATE. A contact diffusion such as Applicants' non-rectifying contact diffusion 38 provides a resistive path which allows an external contact to couple to the device 10 (for example, see paragraph [0024]). Thus, Applicants' respectfully submit that Burr does not disclose a non-rectifying contact diffusion.

Therefore, Applicants believe the rejections under 35 U.S.C. 102(e) have been overcome.

#### **Prior Art Made of Record**

The prior art made of record by Examiner and not relied upon, i.e. Rengarajan (U.S. Patent No. 6,194,278), has been reviewed and does not anticipate or suggest the elements of pending independent claim 19, as amended.

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**CONCLUSION**

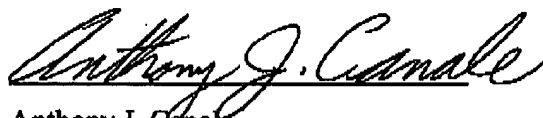
In light of the foregoing amendments and remarks, all of the claims now presented are believed to be in condition for allowance, and Applicants respectfully request that the outstanding rejections be withdrawn and this application be passed to issue at an early date.

The Examiner is urged to call the undersigned at the number listed below if, in the Examiner's opinion, such a phone conference would aid in furthering the prosecution of this application. No fee is due by virtue of this amendment. However, if the PTO determines that a fee is required, please charge Applicants' Deposit Account, 09-0456. If any extensions or fees are not accounted for, such extension is requested and the associated fee should be charged to our deposit account.

Respectfully Submitted,

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